

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:
Adrian P. Wise et al.

Filed: October 10, 2001

For: MULTISTANDARD VIDEO
DECODER AND DECOMPRESSION
SYSTEM FOR PROCESSING
ENCODED BIT STREAMS
INCLUDING A VIDEO FORMATTER
AND METHODS RELATING
THERE TO

§ Serial No. Not Yet Known
§
§ Art Unit: 2783 (anticipated)
§
§ Examiner: Follansbee, J. (anticipated)
§
§ Attorney Docket No.:
§ 94100423(EP)USC1X1C1D7D1 PDDD
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PRELIMINARY AMENDMENT

BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington DC 20231

Sir:

FILING OF CORRESPONDENCE BY EXPRESS MAIL UNDER 37 C.F.R. § 1.10	
EL443264408US	October 10, 2001
Express Mail Label Number	Date of Deposit

Prior to issuance of Serial Number 09/775,518 filed on February 5, 2001, and entitled MULTISTANDARD VIDEO DECODER AND DECOMPRESSION SYSTEM FOR PROCESSING ENCODED BIT STREAMS INCLUDING A VIDEO FORMATTER AND METHODS RELATING THERETO, applicant wishes to file a new divisional application thereon.

In the Specification:

On page 1, line 1, please delete "DATA PIPELINE SYSTEM AND DATA ENCODING METHOD" and in place thereof, please insert new title:

--MULTISTANDARD VIDEO DECODER AND DECOMPRESSION SYSTEM
FOR PROCESSING ENCODED BIT STREAMS INCLUDING A VIDEO
FORMATTER AND METHODS RELATING THERETO--.

On page 1, lines 2-8, please delete "This is a continuation-in-part application of U.S. Serial No. (not yet known) filed February 2, 1995, which is a continuation application of Serial No. 08/082,291 filed June 24, 1993. This application claims priority from EPO Application No. 92306038.8 filed June 30, 1992, British Application No. 9405914.4 filed March 24, 1994 and British Application No. (not yet known) filed February 28, 1995." and in place thereof please insert the following heading and paragraph:

--CROSS REFERENCE TO RELATED APPLICATIONS

This application is a divisional application of U.S. Serial No. 09/775,518 filed on February 5, 2001, which is a divisional of U.S. Serial No. 09/307,239 filed October 7, 1997, which is a continuation of U.S. Serial No. 08/400,397 filed March 7, 1995, which is a Continuation-In-Part of U.S. Serial No. 08/382,958 filed February 2, 1995, now abandoned, which is a continuation of U.S. Serial No. 08/082,291 filed June 24, 1993, now abandoned.--

In the Claims:

Please add the following claims:

1. A method of processing video data, the method comprising:

2 receiving video data having portions encoded in accordance with respective
3 different video standards, the plurality of video standards defining corresponding start
4 codes;

5 identifying a start code included in the received video data; and

6 processing the received video data in accordance with the video standard
7 corresponding to the identified start code.

1 2. The method of claim 1 wherein the start code comprises an H.261
2 picture start code.

1 3. The method of claim 1 wherein the start code comprises an
2 MPEG (Motion Pictures Experts Group) start code.

1 4. The method of claim 1 wherein the start code comprises a JPEG (Joint
2 Photographic Experts Group) start of scan marker.

1 5. The method of claim 1 wherein the start code comprises a start code
2 used by a video format that encodes spatial and temporal video data.

1 6. The method of claim 1 wherein processing comprises decoding the
2 received video data.

1 7. The method of claim 1 wherein processing comprises constructing one
2 or more images for display based on the received video data.

1 8. The method of claim 1 wherein processing comprises rearranging one

2 of the portions of received video data into an arrangement that complies with a
3 different video standard.

1 9. A method of processing video data, the method comprising:
2 receiving a first set of video data encoded in accordance with a first video
3 standard and having a first start code defined by the first video standard;
4 determining the video standard of the first set of video data by identifying the
5 first start code included in the first set of video data;
6 processing the first set of video data in accordance with a first video standard;
7 receiving a second set of video data encoded in accordance with a second
8 video standard and having a second start code defined by the second video
9 standard;
10 determining the video standard of the second set of video data by identifying
11 the second start code included in the second set of video data; and
12 processing the second set of video data in accordance with the second video
13 standard.

1 10. The method of claim 9 wherein processing comprises decoding.

1 11. The method of claim 9 wherein one of the first or second video
2 standards comprises one of the following: an MPEG (Motion Pictures Experts Group)
3 standard, a JPEG (Joint Photographic Experts Group) standard, or an H.261
4 standard.

1 12. A method of processing encoded video data, the method comprising:
2 receiving video data having portions encoded with respective different video

standards;
determining the video standard used for the received video data;
generating codes demarcating the received video data, the codes being the
same for different video standards; and
processing the received video data in accordance with the codes.

13. The method of claim 12 wherein the video standards comprise at least one of the following: MPEG (Motion Pictures Experts Group), H.261, and JPEG (Joint Photographic Experts Group).

14. The method of claim 12 wherein the codes comprise a picture start code.

15. The method of claim 12 wherein the codes comprise a picture end code.

16. A method of processing encoded video data at a video data processing stage, the method comprising:
receiving identification of a video standard of the encoded video data;
configuring the video data processing stage based on the received identification; and
processing the video data at the configured video data processing stage in accordance with the received identification.

17. The method of claim 16 wherein the video data processing stage

2 comprises a decoder.

1 18. The method of claim 17 wherein the decoder comprises a Huffman
2 decoder.

1 19. The method of claim 16 wherein the video data processing stage
2 comprises an inverse quantizer.

1 20. The method of claim 16 wherein configuring comprises determining
2 tables used by the stage.

1 21. The method of claim 16 wherein the video processing stage
2 programmatically alters electrical signals representing the encoded video data.

1 22. A method of processing video data, the method comprising:
2 receiving a first video data code or marker corresponding to a first video
3 standard;
4 searching video data for the received video code or marker;
5 receiving a second video data code or marker corresponding to a second
6 video standard; and
7 searching video data for the second video data code or marker.

1 23. The method of claim 22 wherein the first video standard comprises one
2 of the following: MPEG (Motion Pictures Experts Group, JPEG (Joint Photographic
3 Experts Group), and H.261.

1 24. The method of claim 22 wherein the video data code or marker
2 comprises at least one of the following: a picture start code, a sequence start code, a
3 slice start code, a start of scan marker, and a group start code.

1 25. A method of processing video data, the method comprising:
2 receiving video data;
3 determining a video standard associated with the video data;
4 generating one or more tokens for controlling decoding of the received video
5 data by a decoding pipeline; and
6 decoding the received video data in the decoding pipeline.

1 26. The method of claim 25 wherein determining a video standard
2 comprises identifying a start code or marker in the received video data.

1 27. The method of claim 25 wherein the video standard comprises at least
2 one of the following: MPEG, JPEG, and H.261.

1 28. The method of claim 25 wherein generating one or more tokens
2 comprises generating one or more tokens that configure the decoding pipeline for
3 processing of the determined video standard.

1 29. The method of claim 25 wherein generating one or more tokens
2 comprises generating one or more tokens demarcating the received video data.

1 30. The method of claim 29 wherein demarcating comprises identifying one
2 or more of the following: a picture start, a picture end, a sequence start, and a group

3 start.

1 31. The method of claim 25 wherein the pipeline comprises a Huffman
2 decoder.

1 32. The method of claim 25 wherein the pipeline comprises instructions for
2 an inverse discrete cosine transform upon a portion of the received video data.

1 33. The method of claim 25 wherein one of the one or more tokens
2 comprises a picture start token that identifies the start of a picture in the received
3 video data.

1 34. The method of claim 25 wherein one of the one or more tokens
2 comprises a picture end token that identifies the end of a picture in the received
3 video data.

1 35. The method of claim 25 wherein one of the one or more tokens
2 comprises a coding standard token that identifies the video standard of the received
3 video data.

1 36. The method of claim 25 wherein one of the one or more tokens
2 comprises a flush token that resets stages in the decoding pipeline.


1 37. The method of claim 36 wherein clearing the pipeline comprises
2 resetting pipeline elements for reception of subsequent video data.

REMARKS

Should the Examiner believe that contact with Applicant's attorney would be beneficial to the disposition of this application, he is invited to contact Applicant's attorney at the telephone number listed below. The Commissioner is hereby authorized to charge payment of any fees associated with this communication or credit any overpayment to Deposit Account No. 94-1175.

Respectfully submitted,

Date: WJ Oct 10, 2001


Richard Stokey
Reg. No. 40,383

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RELATING THERETO

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§ Attorney Docket No.:
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COMMUNICATION - SUBMISSION OF FORMAL DRAWINGS

BOX PATENT APPLICATION

Assistant Commissioner of Patents

Washington DC 20231

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Transmitted herewith are 169 formal drawings on 124 sheets.

In the event a fee is due, the Commissioner is hereby authorized to charge payment of any fees associated with this communication or credit any overpayment to Deposit Account No. 04-1175.

Respectfully submitted,

DISCOVISION ASSOCIATES



Date: 10/10/01

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